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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/449,969	11/26/1999	CAMERON BOLITHO BROWNE	169.1532	6958

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EXAMINER

STONE, JONATHAN D

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 06/04/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/449,969	BROWNE ET AL.
	Examiner Jonathan D Stone	Art Unit 2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 March 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-35 is/are pending in the application.

4a) Of the above claim(s) 1-24 and 35 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 25-34 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6,7.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. This action is responsive to communications: Application filed on 11/26/99.
2. IDS filed on 5/24/00 (paper 5), 9/29/00 (paper 6), and 3/22/02 (paper 7).
3. Claims 25-34 are pending in the case. Claims 25, 28, and 32 are independent claims.

Claims 1-24 and 35 are non-elected claims resulting from an election on 5/27/03.

DETAILED ACTION

Election/Restrictions

4. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-24, drawn to adjusting kerning without the use of a predetermined kerning value by using a two dimensional threshold value, classified in class 715, subclass 519.
 - II. Claims 25-34, drawn to adjusting kerning with the use of predetermined kerning values by summing functions applied to character amplitudes, classified in class 715, subclass 531.
 - III. Claim 35, drawn to adjusting kerning by comparing shape changes between two pairs of characters, classified in class 345, subclass 468.
5. Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as adjusting kerning without the use of a predetermined kerning value by using a two dimensional threshold value.

Invention II has separate utility such as adjusting kerning with the use of predetermined kerning values by summing functions applied to character amplitudes. Invention III has separate utility such as adjusting kerning by comparing shape changes between two pairs of characters. See MPEP § 806.05(d).

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or Group III and the search required for Group II is not required for Group III, restriction for examination purposes as indicated is proper.

7. Additionally, because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

8. A telephone call was made to Mr. Leonard P. Diana on 5/21/03 to request an oral election to the above restriction requirement, but did not result in an election being made. However, a call was received on 5/27/03 from Mr. Diana, resulting in the election of Group II without traverse.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. **Regarding dependent claim 33**, the claim recites the limitations "the perturbation" and "the perturbing function". There is insufficient antecedent basis for this limitation in the claim. The examiner's suggestion of changing said limitations to "the modification" and "the function applied to the estimated amplitudes of the character modification," respectively, would overcome this rejection.

11. **Regarding dependent claim 34**, this claim is rejected for fully incorporating the deficiencies of its base claims.

Examiner's Notes

12. It is to be noted that the following sets of rejections are based upon a possible interpretation of claims 33 and 34 as addressed under 35 U.S.C. 112 above. The interpretation as characterized by the proposed changes has been used while further addressing the claims.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25, 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karow et al (USPN 5937420 – filing date 7/23/1996).

14. **Regarding independent claim 25**, Karow teaches a method of adjusting kerning comprising estimating the amplitude of each character in a kerning direction of a character pair (col 2, ln 14-49, Karow uses sidebearings as spacing metrics to determine character amplitude). Karow teaches applying a function to each amplitude (col 2, ln 14-48, Karow interpolates values using the previously determined amplitude(s)). Karow also teaches increasing the kerning value for each character pair by the sum of the functions (col 2, ln 44-48).

Karow does not explicitly teach estimating the amplitude of a character modification in a kerning direction. However, the invention taught by Karow is applicable to both modified character pairs as it is to unmodified character pairs. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Karow's invention with a modified character pair. After modifying a character pair, a user would have naturally desired to reapply any automatic kerning process to put the new character pair into the best possible spacing situation for easy viewing.

15. **Regarding independent claim 28**, Karow teaches a memory means to store a known kerning value for a character pair (col 1, ln 29-33 and col 5, ln 60 – col 6, ln 6). Karow teaches a method of adjusting kerning comprising estimating the amplitude of each character in a kerning direction of a character pair (col 2, ln 14-49, Karow uses sidebearings as spacing metrics to determine character amplitude). Karow teaches applying a function to each amplitude (col 2, ln 14-48, Karow interpolates values using the previously determined amplitude(s)). Karow also teaches increasing the kerning value for each character pair by the sum of the functions (col 2, ln

44-48 and col 5, ln 6-7). Karow teaches a memory means to store the sum of the addition as an increased kerning value for each modified character pair (col 4, ln 50-62).

Karow does not explicitly teach estimating the amplitude of a character modification in a kerning direction. However, the invention taught by Karow is applicable to both modified character pairs as it is to unmodified character pairs. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Karow's invention with a modified character pair. After modifying a character pair, a user would have naturally desired to reapply any automatic kerning process to put the new character pair into the best possible spacing situation for easy viewing.

16. **Regarding dependent claims 29-30**, Karow teaches memory means for storing data as either RAM or ROM (col 5, ln 55 – col 6, ln 6 and col 4, ln 50-62).

17. **Regarding dependent claim 31**, Karow teaches adjusting values with an adder (col 2, ln 44-48 and col 5, ln 6-7).

18. **Regarding independent claim 32**, the claim incorporates substantially similar subject matter as claim 28, and is rejected along the same rationale.

19. **Regarding dependent claim 33**, Karow teaches a value adjustment wherein a new kerning distance is calculated by the sums of an old kerning distance and the resultant values of functions performed on two character amplitudes (col 2, ln 44-48 and col 5, ln 6-7).

20. **Regarding dependent claim 34**, the rejection of claim 33 is fully incorporated in this rejection. Karow does not explicitly teach an adjusting means having an adjusted kerning value of the sum of an old kerning value and twice the value of a function applied to a maximum modification amplitude. However, the equation of 34 is equivalent to the equation of claim 33 when a (of claim 33) = b and a and b are maximum values. When this occurs $f(a) = f(b)$ and $f(a) + f(b) = 2f(a) = 2f(b)$. When a is a maximum value, then $f(\max) = f(a) = f(b) = A$ (where A is substituted for a of claim 34). It then follows that $f(a) + f(b) = 2A$ and the equations are equivalent. Although Karow does not explicitly disclose maximum amplitudes, he uses sidebearings for determining kerning values (as per claim 1's rejection), these sidebearings implicitly designating a maximum space given to a character (see Fig. 2, numbers 32 and 34). In the case of the sidebearings being equivalent (as in the case of two adjacent letters being the same; see Fig. 4), then the equation as claimed in claim 34 would be equivalent to that claimed in claim 33.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karow in view of Browne et al (USPN 6504545 – priority date 3/27/1998).

21. **Regarding dependent claims 26-27**, Karow does not explicitly teach perturbing the outline of a character, as with a sinusoidal, square, or triangular wave pattern. However, it was

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known and typical in the art at the time of the invention to modify characters in any number of ways, including changing the outline of characters. Browne teaches perturbing the outline of characters (col 1, ln 52-67 and Figs. 11 & 13). Browne does not explicitly teach using sinusoidal, square, and triangular waves for the modifications. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Browne so as to implement the claimed means of character modification. This would have given users additional options for character modification. Furthermore, combining the inventions of Karow and Browne would have been obvious to one of ordinary skill in the art at the time of the invention. Such a combination would have been desired in order to maintain proper kerning while graphically modifying characters.

22. Prior art made of record and not relied upon is considered pertinent to disclosure.

US-5,501,538 A	To:	Sawada et al.
US-5,883,637 A	To:	Nakayama et al.
US-5,740,456	To:	Harel et al.
US-5,768,490	To:	Hersch et al.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D Stone whose telephone number is (703) 305-7854. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R Herndon can be reached on (703) 308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular

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communications and (703) 746-7238 for After Final communications. Responses to this action may be mailed to:

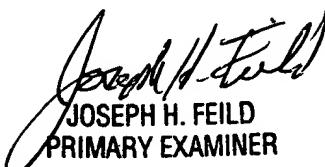
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Hand-delivered responses should be brought to:

Crystal Park II, 2121 Crystal Drive
Arlington, VA, Fourth Floor (receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JDS
May 29, 2003


JOSEPH H. FEILD
PRIMARY EXAMINER